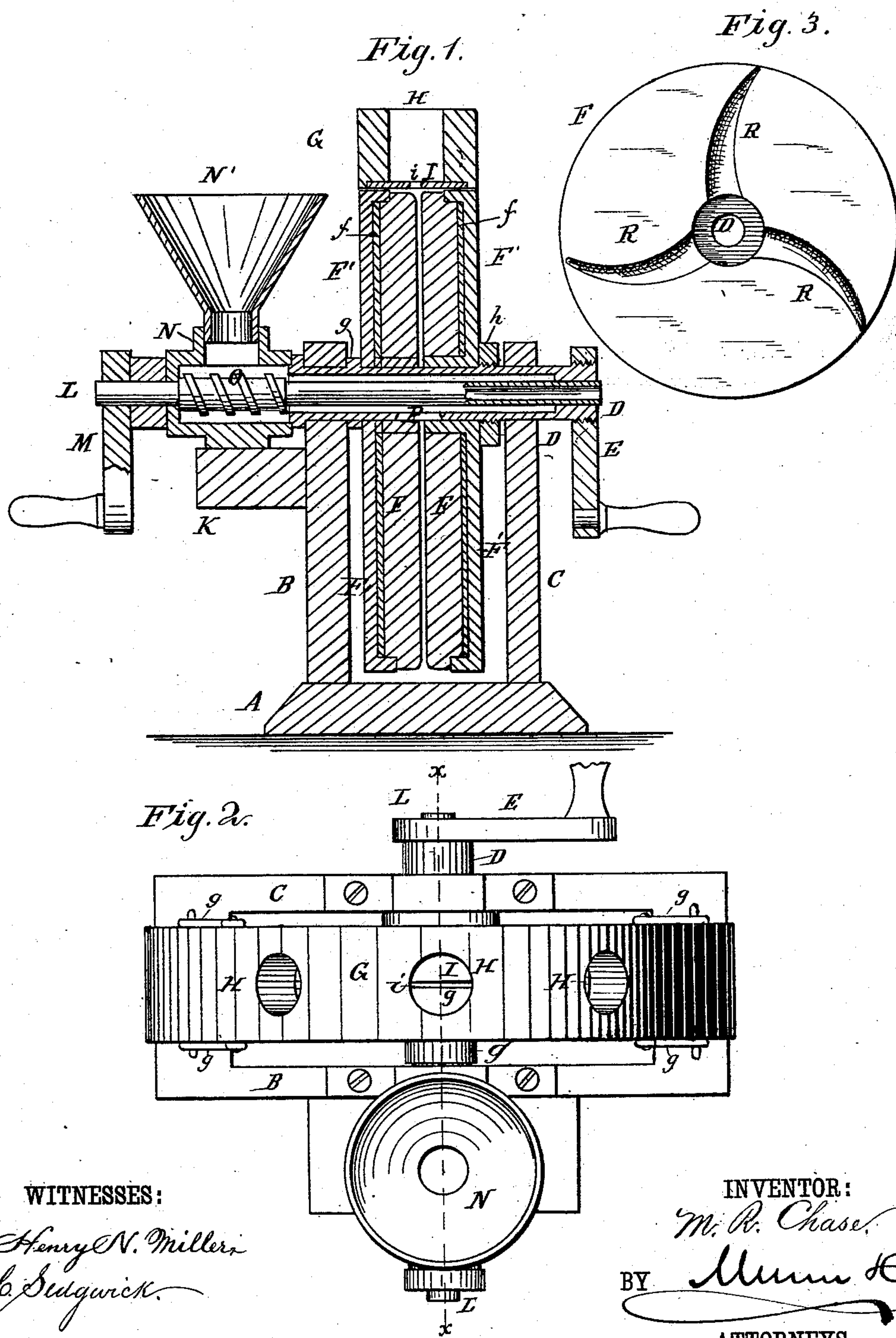


(Model.)

M. R. CHASE.
Polishing Machine.

No. 232,682.

Patented Sept. 28, 1880.



WITNESSES:

Henry N. Miller
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INVENTOR:

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UNITED STATES PATENT OFFICE.

MERVIN R. CHASE, OF WARREN, RHODE ISLAND.

POLISHING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 232,682, dated September 28, 1880.

Application filed May 18, 1880. (Model.)

To all whom it may concern:

Be it known that I, MERVIN R. CHASE, of Warren, in the county of Bristol and State of Rhode Island, have invented a new and Improved Polishing-Machine, of which the following is a specification.

The objects of my invention are to efficiently feed the polishing-powder to and distribute it upon the polishing-surfaces, to render the polishing-surfaces by their construction and the peculiarly-prepared polishing-powder used upon them thoroughly pliable, pressing the polishing-powder evenly upon all parts of the surfaces to be polished, and to prevent the shanks of the blades or tools to be polished from coming in contact with the edge of the polishing-disks. These objects I accomplish by means shown in the accompanying drawings, in which—

Figure 1 is a vertical central section of my machine, taken on line *x x* of Fig. 2. Fig. 2 is a top view, and Fig. 3 is a view of the face of one of the polishing-disks.

The same letters of reference are used to designate the same parts of the machine in all the figures of the drawings.

A is the base of the machine, to which are attached the side pieces of the lower part of the cylinder or case in which the polishing-disks revolve. In the upper part of the end pieces are the bearings for the hollow shaft D, by which the disks are revolved by means of crank E.

F F are the polishing-disks, which, with their protecting-caps F' F', are secured to the shaft by means of boss *g* and nut *h*.

The disks may be made of cork, and yielding cushions placed between them and the caps, or they may be made of sole-leather or similar material covered with pliable leather, beneath which is a stuffing of hair, wool, or some elastic material. The polishing-disks, by either construction, are permitted to act upon the surfaces to be polished with an elastic yielding pressure.

G is the upper removable part of the case, secured to the lower part by the latches *g* or by other suitable means.

In the case G are holes H, through which the blades or tools to be polished are thrust between the polishing-surfaces.

Plates I, with slots *i*, act as guides and pre-

vent the shanks of the articles to be polished from coming in contact with the edges of the polishing-disks.

K is a shelf or platform projecting from the end piece, B, of the lower part of the case. It supports the polishing-powder box N, which is provided with the funnel N'.

The polishing-powder is carried from the box N to the interior of the hollow shaft D by means of the feeding-screw O upon the shaft L, the latter being driven by crank M. The powder is forced along the hollow shaft D until it reaches the opening P, through which it passes into the grooves R on the inner faces of the polishing-disks, and is evenly distributed upon the latter.

I prefer to so place the polishing-disks that the grooves in one will alternate with the grooves in the other, by which means I utilize all the polishing-surface of both disks and secure the best distribution of the polishing-powder.

In order to insure the yielding elastic pressure of the polishing-surfaces, I mix the polishing-powder with sawdust of cork or similar soft elastic material and a small quantity of soap and water, or the like.

The powder thus prepared, when dry and evenly distributed upon the faces of the polishing-disk, forms a soft pliable surface, which, in connection with the cushioned disks, provides for a uniform yielding pressure upon all parts of the surfaces to be polished.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. In combination with the shaft D, having boss *g*, the disks F F, caps F' F', and nut *h*, substantially as described.

2. In combination with the polishing-disks F F, the hollow shaft D, having opening P, the powder-containing box N, and feeding-screw O, substantially as and for the purpose described.

3. In combination with the hollow shaft D, having opening P, the polishing-disks F F, having grooves R, for the purpose set forth.

MERVIN RICHARDSON CHASE.

Witnesses:

WILLIAM H. CHAFFEE,
CHARLES B. MASON.